1	Supporting materials					
2						
3	Assessing exposure to tobacco-specific carcinogen NNK using its urinary					
4	metabolite NNAL measured in US population: 2011–2012					
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10	Total Pages: 5					
11	Table: 2					
12	Figure: 2					

Table S1. The parameter value for the fraction of NNAL excreted through urine (f).

Category	Range (%)	Distribution	References	
Single IV dose	25 – 58		Meger et al., 1999	
Single IV dose	15 – 25		Hecht et al., 1993	
Smokeless products	14 – 17		Hecht et al., 2008	
Cigarette, pipe and cigar	15 – 58	Uniform	This study	
Non-tobacco users	15 – 58	Uniform	This study	
Smokeless products	14 – 17	Uniform	This study	

Table S2. Urinary creatinine excretion (CE, mg/kg/day) applied in the Monte Carlo simulation.

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	Urinary creatinine excretion (CE, mg/kg/day) a					
Category	Nonsmoker		Cigarette User		Distribution	
_	Mean	STD	Mean	STD		
All	21.2	2.12	23.5	2.35	Log-normal	
Male	23.5	2.35	27.1	2.71	Log-normal	
Female	19.2	1.92	19.4	1.94	Log-normal	
Kids (6-11 years)	28.5	2.85	-	-	Log-normal	
Adolescents (12-19 years)	26.8	2.68	27.2	2.72	Log-normal	
Adults (20-59 years)	21.8	2.18	24.4	2.44	Log-normal	
Elderly (≥60 years)	16.2	1.62	17.6	1.76	Log-normal	
Non-Hispanic white	20.4	2.04	23.8	2.38	Log-normal	
Non-Hispanic Blacks	23.2	2.32	25.1	2.51	Log-normal	
Mexican Americans	20.9	2.10	18.5	1.85	Log-normal	
Other races	22.0	2.21	18.8	1.88	Log-normal	
	Pipe or Cigar Users		Snuff or chewing tobacco users			
All	21.5	2.15	26.3	2.62	Log-normal	

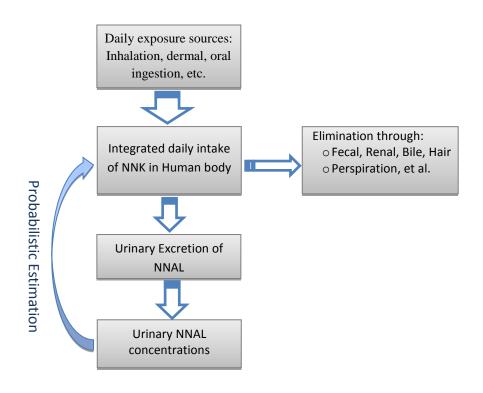
^a Mean of the urinary creatinine excretion rate was estimated to be the product of the means of urinary creatinine concentration and the urine flow rate and then divided by the mean of the body weight. STD: standard deviation in the simulation was estimated to be 0.1×CE.

18 19 Figure S1—Computational scheme of the daily intake of NNK

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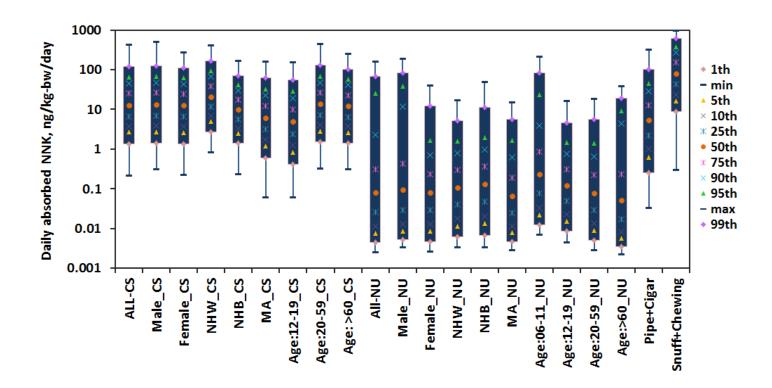


Figure S2—Estimated absorbed daily dose of NNK among each subgroup in US population: 2011-2012. Abbreviations: NHW=non-Hispanic white, NHB=non-Hispanic black, MA=Mexican American, CS=cigarette smoker, NU=non-users.